

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation

**Federal Aviation
Administration**

SW-06-20
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<http://www.faa.gov/aircraft/safety/alerts/>

This is information only. Recommendations aren't mandatory

Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts you, owners and operators of certain, **Meggitt/S-TEC Corporation pitch servo components**, listed below, that could exhibit a potential failure of the pitch servo causing autotrim operation to become inoperative or unreliable. The pitch servo is installed in various small airplanes that have a Meggitt/S-TEC autopilot configuration. This failure may result in loss of control of the aircraft.

SERVO COMPONENTS

Servo Part Number and Type	Serial Number Range/Manufacture Dates
0107-()-() and 14 VDC	0505-15886 to 0519-16166 / Feb. 2, 2005 to May 10, 2005
0108-()-() and 28 VDC	0505-14131 to 0519-14543 / Feb. 2, 2005 to May 11, 2005
01230-()-() and 28 VDC	0452-076 to 0517-090 / Dec. 20, 2004 to Apr. 29, 2005

Background

We received notification from Meggitt/S-TEC Corporation, the servo manufacture, that they have identified two servos in their production line with trim switch actuation arm fastener lose. In one case, the fastener was loose within the servo housing. The second case noted pitch autotrim was inoperative during initial installation ground checks. They discovered both defects prior to the production phase of certification.

Recommendation

To prevent additional failures of the pitch servos, we strongly recommend that you comply with Meggitt/S-TEC Service Bulletin 05-004 (attached).

For Further Information Contact

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SERVICE BULLETIN – SB 05-004

PN: 7740
DATE: 5/13/2005

TO: Meggitt / S-TEC Dealers

FROM: Trevor Palmeri, VP Customer Support

1. PLANNING INFORMATION

A. EFFECTIVITY

The following pitch servos:

Servo PN	Manufacture Date Range		Serial Number Range	
	From	To	From	To
0107-()-() 14 VDC	Feb 2, 2005	May 10, 2005	0505-15886	0519-16166
0108-()-() 28 VDC	Feb 2, 2005	May 11, 2005	0505-14131	0519-14543
01230-()-() 28 VDC	Dec 20, 2004	Apr 29, 2005	0452-076	0517-090

B. CONCURRENT REQUIREMENTS

N/A

C. REASON

To notify dealers of the requirement to contact owners / operators to inform them of a mandatory pitch servo repair requirement and provide instructions for accomplishment of this Service Bulletin.

D. DESCRIPTION

Two pitch servos have been identified as having a trim switch actuation arm fastener lose torque. In one case the fastener was loose within the servo housing. In the second case, pitch autotrim was noted to be inoperable during initial installation ground checks. In both cases, the indications were discovered prior to or during installation of the system. No reports have been received of this malfunction after an aircraft has been placed in service.

Failure indications could include loss of pitch servo operation, loss of or faulty autotrim operation (if installed), or loss of or faulty trim requirement indications. The loss of autotrim capabilities could result in an "out of trim" condition at autopilot disconnect.

E. COMPLIANCE

Compliance is **mandatory** and should be accomplished as soon as practical, but no later than the next 20 flight hours or 90 calendar days, whichever is less. After August 13, 2005, the autopilot may not be used until this Service Bulletin has been complied with. The autopilot pre-flight test procedure in the applicable Pilot's Operating Handbook should be accomplished prior to each flight. In the event of **any** autopilot malfunction, the autopilot should be disengaged and turned off until repairs are accomplished by an authorized S-TEC dealer.

F. APPROVAL

N/A

G. MANPOWER

One and one-half hours of warranty labor will be paid to authorized S-TEC dealers for removal and reinstallation of affected pitch servos.

H. WEIGHT AND BALANCE

N/A

I. ELECTRICAL LOAD DATA

N/A

J. REFERENCES

N/A

K. OTHER PUBLICATIONS EFFECTED

N/A

2. MATERIAL INFORMATION

A. TOOLING

N/A

B. MATERIAL COST AND AVAILABILITY

N/A

3. ACCOMPLISHMENT INSTRUCTIONS

A. DISASSEMBLY

1. INSTRUCTIONS

Remove the pitch servo from the aircraft and contact S-TEC Customer Service @ 1-800-872-7832 for an RMA number. Ship the pitch servo to S-TEC for modification. Dealers should include shipping charges to the factory on the warranty labor claim. S-TEC will return the updated unit to the dealer, freight prepaid.

B. RE-ASSEMBLY

1. INSTRUCTIONS

Reinstall updated pitch servo and perform ground functional test prior to returning aircraft to service.

Ensure proper maintenance entries are made in aircraft maintenance records, identifying compliance with Service Bulletin 05-004, dated 5/13/05.

C. RE-IDENTIFICATION

Re-identification of servo will be accomplished at update by S-TEC.



Trevor Palmeri
Vice President of Customer Support